# Data Analytics and Efficiencies in Government:

Maximizing the Effectiveness of Government Budgets



#### Presented to:

The Legislative Research Commission's Committee on Efficiencies in Government

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### **Today's Discussion**



The Potential for Analytics in State Government

**Lowest Hanging Fruit** 

Leveraging Data Analytics in a Heterogeneous Environment

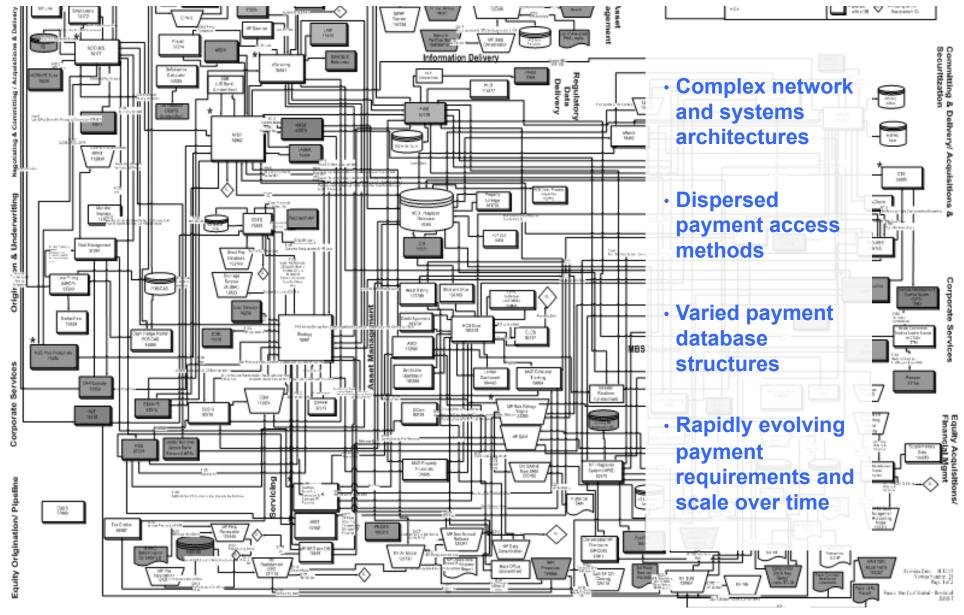
**Establishing a Data Analytics Function** 

**Applying Government Lessons Learned and Best Practices** 



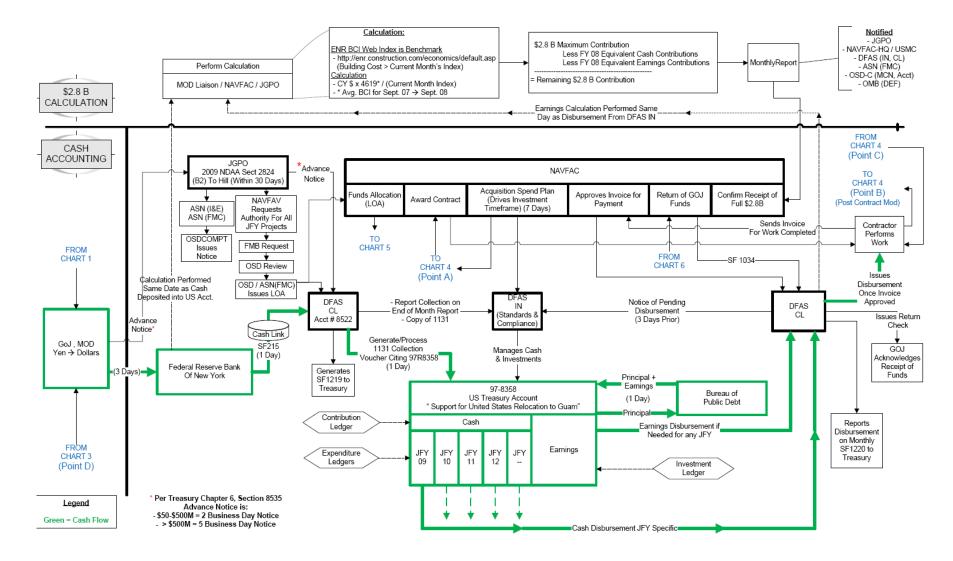
# It All Begins with Data and Acquiring Data is a Challenge





# **And Government Business Processes are Complex**

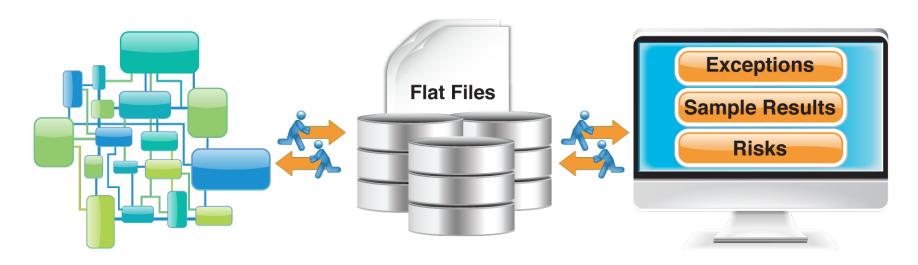






### **Traditional Data Analysis Challenges**





## Data Acquisition Process

- Each extraction or engagement is different
- Limited repeatability
- 30-50% of time (we've seen 80%) is consumed in data acquisition and formatting

### Analytics and Data Review

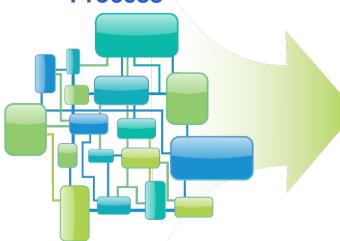
- Validation and completeness testing falls is manual and iterative
- Quality related to individual capabilities
- Manually intensive and difficult to scale cost effectively
- Subject to inconsistency and lack of repeatability and reliability (both within and across clients)



# **But Automated Data Acquisition, Analysis, and Review is Happening**



## Data Acquisition Process



## **Automated Comparison**



Common Data Model Common Analytics Set

- Highly repeatable process
- Minimal IT and finance involvement
- Automated validation and completeness testing

- Performed on a common data model
- Repeatable, automated download
- Repeatable analysis

### Improper Payments Data Review



- Focus on risks
- Review exceptions
- Conclusions based on all transactions
- Consistent end-to-end analysis



### Why Do CFOs and IGs Implement CTM?

Comprehensive Compliance Approach

Continuous
Business
Improvement

#### **Agency Objectives:**

- Consistent, comprehensive approach across multiple processes
- Embrace & extend existing controls
- Automate high effort compliance within and across controls
- Real-time fraud detection & validation

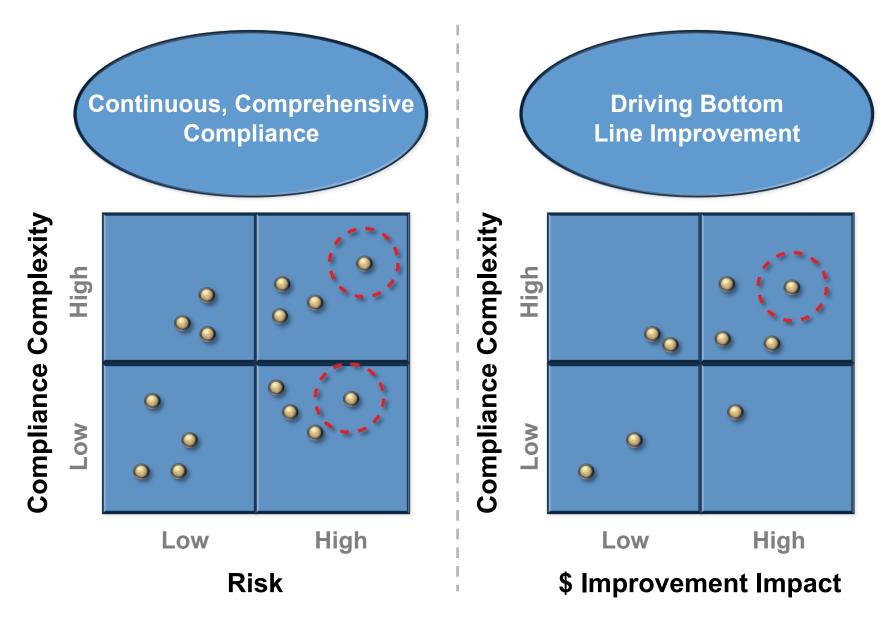
#### **Agency Objectives:**

- Increased spending insight
- Lower direct costs
- Minimize errors
- Timely detection of improvement opportunities
- Gain better clarity into transaction processes

"Real-time", pro-active, automated, efficient, continuous improvement



### **Identifying Priorities for Analysis**





## The Potential for Data Analytics in State Government



#### **Preventing Fraud, Waste and Abuse**

- Vendor Payments
- Procurement, Travel, and Fleet Cards
- Payroll
- Unemployment Insurance
- Medicaid

#### **Reconciliation of Disbursements**

- Automated Matching of Appropriations to Disbursements
- Leverage Unmatched Disbursements to Investigate Anomalies

#### **Performance Management**



### **Addressing the Lowest Hanging Fruit**



#### **Improper Payments**

- Vendor Payments
- Procurement, Travel, and Fleet Cards
- Payroll
- Unemployment Insurance
- Medicaid

#### **Unemployment Insurance**

- Automated Matching of Appropriations to Disbursements
- Leverage Unmatched Disbursements to Investigate Anomalies

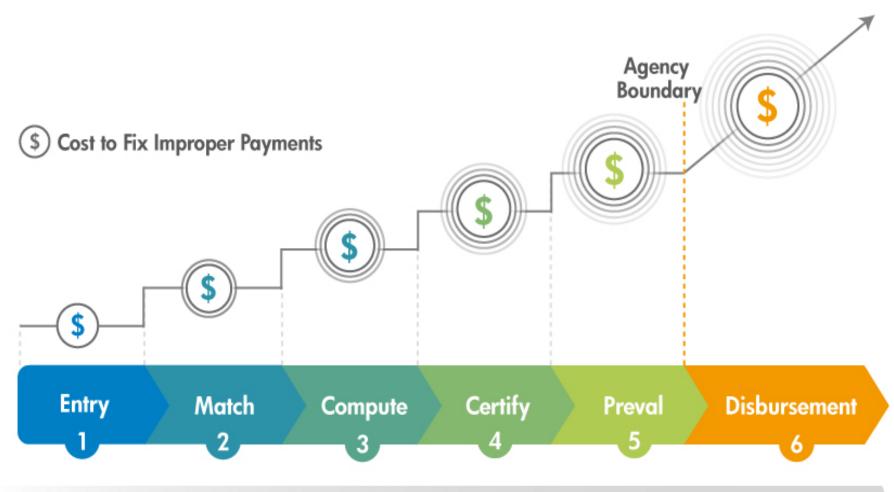
#### **Medicaid**

- Identify Improper Payments
- Uncover the Causes of Fraudulent Payments



# **Prevent Improper Payments Before They Occur**



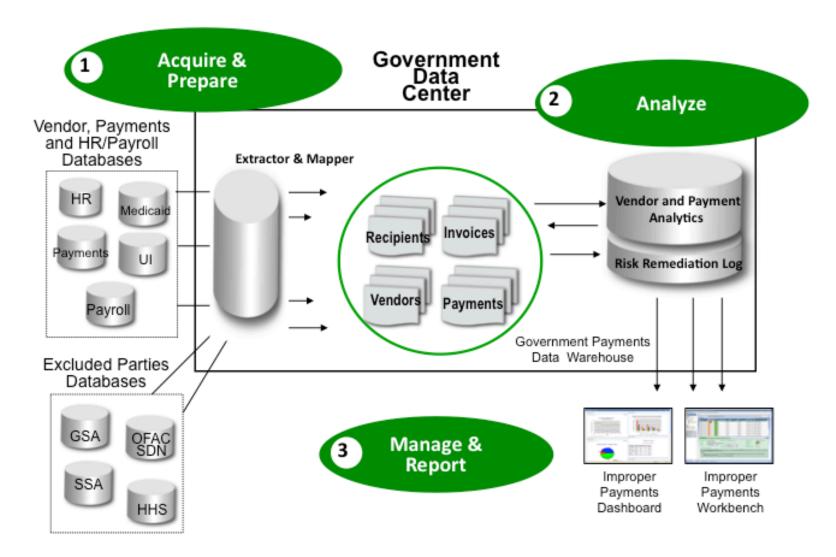


**Payment Processing Steps** 



# Leveraging Data Analytics in a Heterogeneous Environment



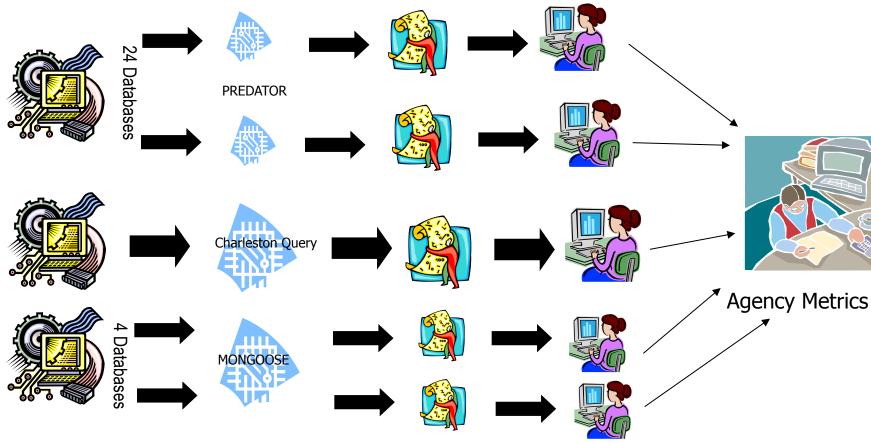




# **Defense Finance and Accounting Services** (**DFAS**) – A Case Study



#### Prior State of Improper Payments Detection



Vendor Payment transactions were fed through various tools looking for repeat payments made. Lists of exceptions are tagged and placed on reports for technicians, who utilize source systems to research and resolve.



# **Defense Finance and Accounting Services (DFAS) – A Case Study**





- -Standard solution
- -Standard training
- -Better analytics
- -Fewer false positives

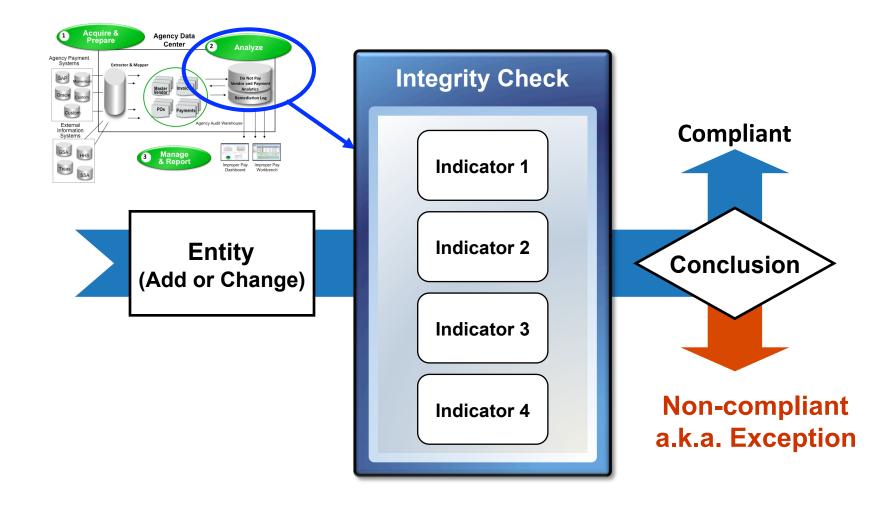
#### **Better results**

Prevention increased from \$100 million per year to \$2 billion per year



# **Integrity Checks: Correlation of Individual Tests to Draw More Precise Conclusions**

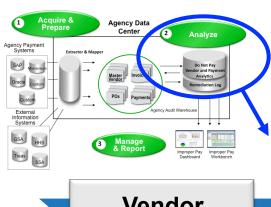




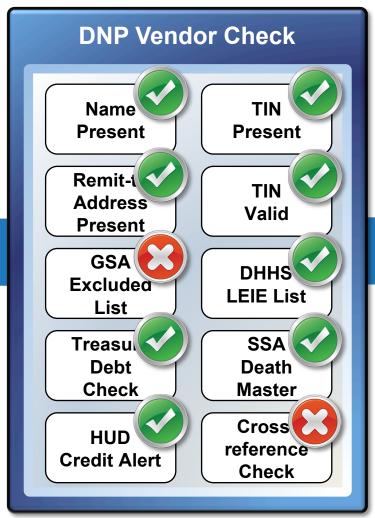


# **Integrity Checks: Correlation of Individual Tests to Draw More Precise Conclusions**

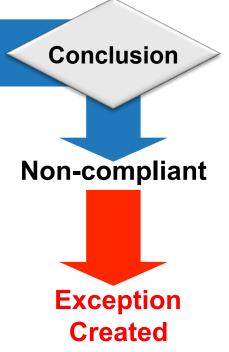




Vendor Omega Rho International



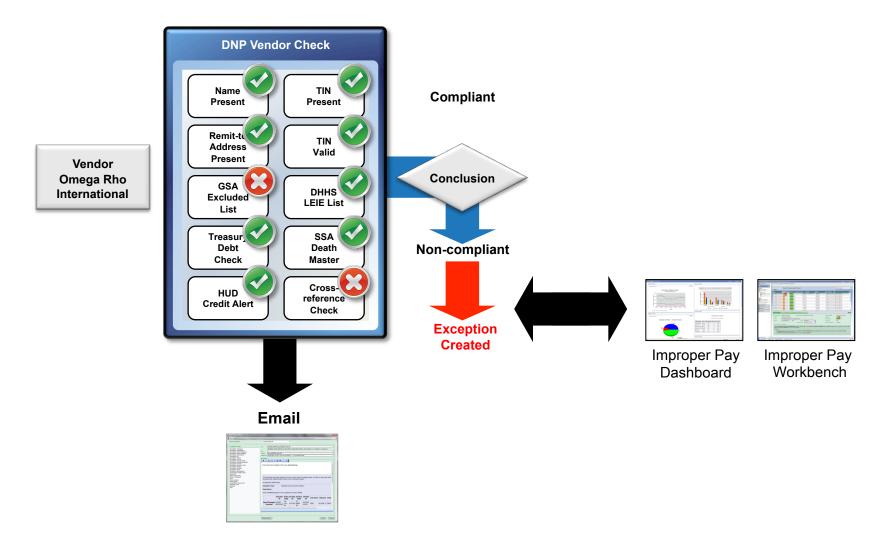
#### Compliant





### **Root-Cause Remediation Handled Two Ways**

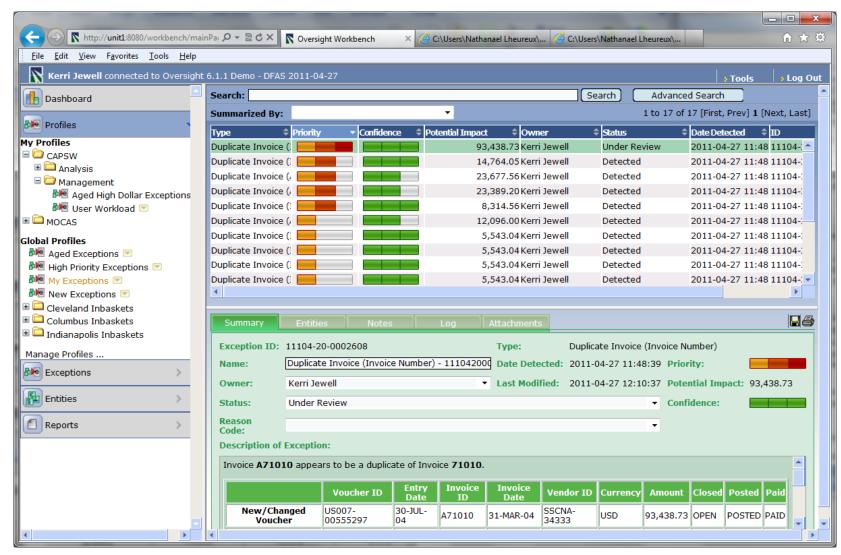






### **Oversight Systems**

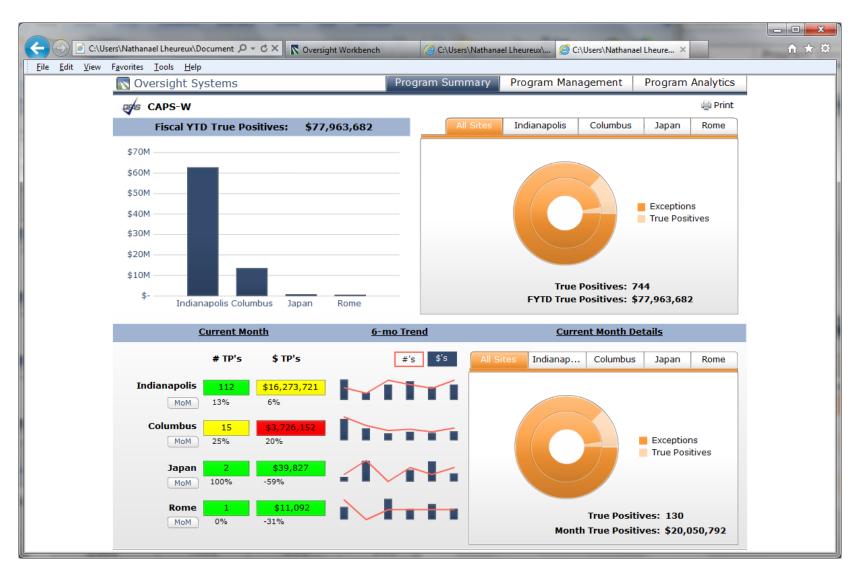






### **Oversight Systems**







#### **Lessons Learned**



#### **Adopt a Vision**

Designate a Project Management Office (PMO) or Center of Excellence (COE) to Lead the Effort

**Prove the Value and Return** 

**Eat the Elephant One Bite at a Time** 

**Enable Action in the Business Process** 



### **Summary**



## High Potential for Data Analytics to Address Fraud, Waste and Abuse in State Governments

**High Potential Returns in at Least Three Areas** 

Heterogeneous Environments Do NOT Prevent State Governments from Leveraging Data Analytics

Data Analytics PMO or COE Should Serve as the Leader for Agencies and Their Lines of Business

There is an Established List of Lessons Learned



#### **Contact Information**



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**Thank You**